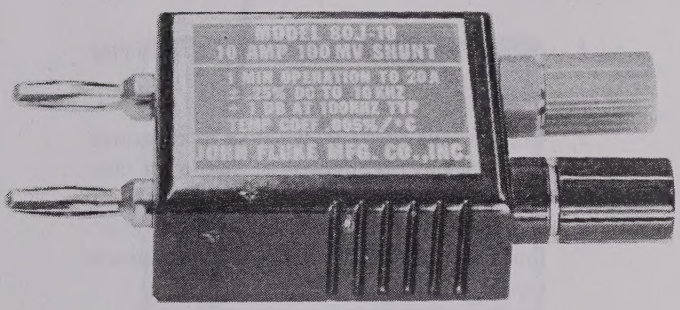
FLUKE

Instruction Sheet

80J-10

AC/DC Current Shunt



INTRODUCTION

The Model 80J-10 Current Shunt allows any voltmeter with ¾ inch center banana jacks and 0.1 mV resolution to be used to measure up to 10 amps continuous (20 amps for periods not exceeding one minute) DC to 10 kHz at an accuracy of ±0.25% in excess of the voltmeter accuracy.

SPECIFICATIONS

Shunt: 10 amps at 100 mV

Accuracy (18°C to 28°C):
DC to 10 kHz: ±0.25%
10 kHz - 1000 kHz: Rising to 1 dB at 100 kHz typical

Temperature Coefficient: 0.005%/°C

Inductance: 8.3 nh in series w/0.01Ω shunt

Overload: Up to one minute at 20A with a ¼ duty cycle for recovery after currents between 10 and 20A.

OPERATION

Use the 80J-10 as follows:

1. Connect the 80J-10 to a DMM with ¾ inch center banana jacks, red to the HI input terminal to maintain a proper reference. The DMM used must have a resolution of 0.1 mV to ensure accuracy specifications.

CAUTION

The 80J-10 is not fused and appropriate care should be exercised during use.

2. Select the applicable range on the voltmeter.

3. Connect the current output to be measured to the 5-way binding posts. Spade lug connectors should be used for maximum accuracy; however the binding posts connections are acceptable with a constant current input.

WARNING

IF OPERATING WITH A FLOATING SYSTEM TAKE SPECIAL CARE TO INSURE NONE OF THE TERMINALS ARE EXPOSED.

4. Convert the value displayed on the meter in millivolts to amps on a 100 mV to 10A ratio as shown below.

Multiply the absolute value displayed by 100 and convert volts to amps.	
100 mV = 10A 195 mV = 19.5A 57 mV = 5.7A	METERS WITH HUNDREDS MILLIVOLT RANGE
0.1V = 10A 0.2V = 20A 0.073 = 7.3A	METERS WITH UNITS VOLTS RANGE

APPLICATIONS

The Model 80J-10 AC/DC Current Shunt can be used with any voltmeter (typical placement shown in Figures 1 and 2) as long as the accuracy and capability of the meter under use is taken into consideration.

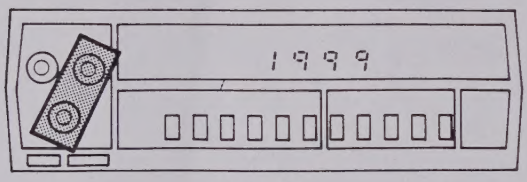


Figure 1.

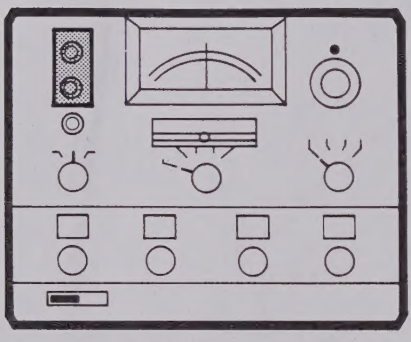


Figure 2.

WARRANTY
ONE YEAR LIMITED WARRANTY

John Fluke Mfg. Co., (Fluke) warrants your accessory to be free from defects in material and workmanship under normal use and service for 1 year from the date of purchase if you are the original purchaser. The warranty does not apply to batteries or fuses or when the accessory has been misused, altered, or damaged by accident or abnormal conditions of operation.

For warranty service, send the accessory with a description of the difficulty, postage prepaid to a Fluke Service Center. Fluke assumes no risk for damage in transit. Fluke will, at our option, repair or replace the defective instrument free of charge. However, if we determine that the failure was caused by misuse, alteration, accident, or an abnormal condition of operation, you will be billed for the repair. The repaired accessory will be returned, transportation prepaid.

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